

## **TOWN OF BARRINGTON**

Environmental
Engineering
for CDBG Project

Qualifications | 4.21.21





227183X April 21, 2021

Conner MacIver, Town Administrator PO Box 660, 333 Calef Highway Barrington, NH 03825

### Subject: Statement of Qualifications for Environmental Engineering for CDBG Project

Dear Mr. MacIver,

DuBois & King (D&K) is pleased to submit our qualifications to the Town of Barrington (Town) for the Environmental Engineering Services for the CDBG-funded septic replacements at the Barrington Oaks Cooperative. D&K is highly qualified to complete the Phase 1 Environmental Assessment, including vapor encroachment survey, the CDBG Environmental Statutory Checklist, and the Environmental Assessment Checklist for the project.

Over the past ten years, D&K has worked with the Town staff on a variety of projects and we look forward to the opportunity to further serve the Town. We view ourselves as an extension of Town staff and our experience provides us with a thorough knowledge of Town procedures.

The D&K professionals assigned to this project have over 30 years of experience. Our team has recent successful experience at manufactured home parks similar to Barrington Oaks Cooperative that received funding through the Community Development Block Grant program. Our team brings valuable experience with site planning, infrastructure evaluation, and improvement projects for manufactured housing cooperatives. We understand the service and budgetary needs and coordination required by manufactured housing clients.

We look forward to an opportunity to discuss our qualifications. If you have any questions or need any additional information, please do not hesitate to contact me at (802) 465-8396 or at jashley@dubois-king.com.

Sincerely,

DuBois & King, Inc.

Jon Ashley, PE Project Manager

### **Project Understanding**

The Town of Barrington has received Community Development Block Grant (CDBG) funding for improvements to the Barrington Oaks Cooperative manufactured housing park. The proposed improvements include septic replacements for the park. A requirement associated with CDBG funding includes environmental documentation. A Phase I Environmental Site Assessment (ESA) is required, which under ASTM Standard E1527-13, includes a vapor intrusion assessment. Environmental documentation also includes the CDBG Environmental Statutory Checklist and Environmental Assessment Checklist (if applicable). D&K has completed these tasks for the Gaslight Village Cooperative and for the Westview Meadows Association, and we have assigned the same project team to complete this assignment. Together with our familiarity and track record working with the Town of Barrington for 10 years, our project team is well qualified to assist the Town with this project.

Based on our experience working with similar housing communities in New Hampshire and Vermont, the main activities and uses of concern are often heating systems (fuel oil storage tanks) and occasionally waste management practices (disposal of used motor oil and other materials). Based on the setting of Barrington Oaks, adjacent property uses are not expected to be of significant concern. D&K will conduct site reconnaissance, interviews, and historic records review (which are requirements of ASTM E1527-13) to confirm these thoughts.

### **Detailed Scope of Services**

### Phase I Environmental Site Assessment

D&K will conduct Phase I ESAs in accordance with ASTM Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-13) and in conformance with the Standards and Practices for All Appropriate Inquiries; Final Rule (40 CFR Part 312). A typical ESA involves conducting a field reconnaissance, interviewing landowner(s)/former building occupants, conducting a database search (federal/state/local) to assess potential onsite/offsite contaminant threats, reviewing state files related to previously conducted environmental work, and reviewing land records at the municipal offices to understand the land use history. The objective of the Phase I is to identify Recognized Environmental Conditions (RECs) in order to satisfy the AAI requirement for due diligence.

D&K will use a database search firm to conduct the review of environmental databases. Our team also has the ability to use ArcGIS to generate GIS maps showing listed hazardous waste sites, USTs, and hazardous waste generators. Through access to New Hampshire One Stop, New Hampshire GRANIT, NHDES databases, and information provided by the Town, D&K can access information on many sensitive receptors, including surface waters, private supply wells, public supply wells, wellhead protection area and source protection areas, flood zones, soil maps, surficial and bedrock geology maps, etc. D&K has access to full state coverage of digital orthophotographs.

### Firm Overview

DuBois & King was founded in 1962 and is an employee-owned firm providing multidisciplined planning, engineering, and construction phase services to municipal, state, and federal clients. With offices in Laconia, Bedford, and Keene, New Hampshire, and Vermont, Maine, and New York, D&K provides professional services in water/wastewater, survey, civil/site, transportation, structural, mechanical, electrical, and permitting. The firm employs more than 120 engineers, surveyors, technicians, environmental and permitting specialists, wetland scientists, landscape architects, and support personnel with the capabilities and experience to support a broad range of projects.

As a full-service firm, D&K has completed the evaluation, design, and construction of numerous water, wastewater, and utility reconstruction projects throughout New Hampshire and Vermont, including assisting cooperative clients in addressing infrastructure deficiencies.

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### **Project Team**



Jon Ashley, PE, Project Manager/Senior Environmental Engineer, is a Qualified Environmental Professional (QEP) with 28 years of experience in site assessment, remediation and development projects throughout the Northeast. He has extensive experience with Phase I, II, and III Environmental Site Assessments; hazardous waste and brownfield remediation, CAPs, and CAFIs/ECAAs; and subsurface investigation and underground storage tank closures. He has been involved in the Vermont BRELLA program and EPA Brownfield projects. As a New Hampshire-Registered Environmental Engineer, Jon will certify that the ESA is conducted in accordance with generally accepted engineering practices and will act as the primary contact for the project.



Andrew Hoak, PE, PG, Senior Environmental Engineer and QA/QC, is a licensed environmental engineer and QEP with 27 years of project experience and extensive experience performing site investigations for projects involving hazardous materials. He has led brownfield redevelopment projects, Phase I, II and III Environmental Assessments, Analysis of Brownfield Cleanup Alternatives (ABCA) projects, and remediation projects. A licensed professional geologist, Andy has a thorough understanding of site geology and hydrogeology, which are invaluable in determining appropriate remedial strategies and in developing effective CAPs. Andy will provide senior-level engineering support and will provide Quality Review for all project deliverables.



Nick Sceggell, PE, LPA, Senior Civil Engineer, has 17 years of experience working with municipal, nonprofit, and commercial clients on a diverse portfolio of design, construction management, and environmental planning projects. He has significant experience on civil/site and utility projects, including drinking water, wastewater/sewer, and stormwater infrastructure. Nick previously worked for the Granite State Rural Water Association and has assisted many small water systems, including several cooperatives throughout New Hampshire. He served as project manager for a CDBG Feasibility Study for the Bunker Lane Condo Association in Madbury and for CDBG-funded water/wastewater system improvements for the Gaslight Village Cooperative in Tilton, which included a Phase I ESA, as well as the Westview Meadows Association, which included

a CDBG Environmental Statutory Checklist and Phase I ESA. Nick will be responsible for CDBG Coordination and compliance with funding requirments.



**Taylor Vasquez, LPA, Design Engineer,** has experience with residential and commercial site design, including utility, grading and drainage, septic and subdivision design work as well as feasibility studies, cost estimating, preparation of specifications and construction inspection. Taylor has supported annual monitoring and well sampling at the closed landfill in Orford. She has also prepared a Phase I ESA for the Westview Meadows Association CDBG-funded water system improvements. Taylor will provide field services, town records review, interviews, and historical/database research.

### **Representative Experience**

Projects completed by DuBois & King follow.

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### Infrastructure Improvements Gaslight Village Cooperative Tilton, New Hampshire

D&K completed a feasibility study to assess a ten-lot expansion of the existing manufactured housing park. The cooperative is located along a busy route between Interstate 93 and Laconia. In the past, the co-op collected rent from a commercial business based on its property along the state highway. However, the business closed, and the co-op chose to pursue an expansion to address the shortfall in income. To support the expansion, D&K held a workshop to gather input on a conceptual plan, which was presented to the Town's Land Use Boards and received approval from the Zoning Board of Adjustment.

The project included an infrastructure assessment. The co-op is connected to the Lochmere Village Water District for water service and utilizes on-site septic systems. The water system is owned by the co-op and has continually required repairs of leaking fittings. The park is served by a single master meter, and the leaking water continues to be billed by the water district. D&K identified water system improvements to address the leaks.

The on-site septic systems vary widely in condition. The Winnipesaukee River Basin Program's sewer abuts the property, but a section of the park requires a pumping system to get wastewater off the property. D&K's study evaluated homes that could currently be served by gravity and developed a plan to connect remaining homes through an abutter easement.

D&K completed a Phase I Environmental Site Assessment according to ASTM 1527-13, including recommended preventative measures to product against fuel oil spills.

Construction cost estimates provided the co-op with a phased approach and guided assistance from various funding agencies to implement the water and sewer system improvements. This was a 100% CDBG-funded project with a limited budget.









### Engineering Water System Improvements, Westview Meadows, Belmont, New Hampshire

DuBois & King provided design, MEP services, public engagement programming, and construction administration for critical improvements and upgrades of the community's water system that serves 24 homes and approximately 70 residents. The components of the pump house had outlived their useful life. The existing pumps had been rebuilt multiple times, and the existing tanks needed to be replaced.

Improvements to the pump house included expanding the building to accommodate new tanks and pumps and provide adequate clearances to mechanical and electrical equipment; updating the electrical and mechanical systems to meet codes; and installing drainage around the foundation to help prolong the life of new equipment by providing a better operating environment with less exposure to moisture.

The project was funded through a Community Development Block Grant and required a Phase I Environmental Site Assessment and Environmental Statutory Checklist.

<sup>\*</sup> Above photos, existing conditions of pump house.











# 18 Church Street, Phase I ESA Arlington, Vermont

D&K conducted a Phase I ESA of a 0.48-acre parcel containing an 1800s-era building that was renovated to include two commercial office spaces and two apartments. The prospective purchaser was considering purchasing the property and renovating the building for use as part of a medical practice. The purchaser contracted with D&K to perform a Phase I ESA to identify recognized environmental conditions (RECs). This assessment was completed according to ASTM International Standard E1527-13, entitled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM Standard); and the Environmental Protection Agency (EPA) Rule entitled "Standards and Practices for All Appropriate Inquiries; Final Rule" (AAI Rule).

DuBois & King identified RECs including a heating oil tank and a metals treatment system connected to the on-site leachfield, as well as potential effects from nearby manufacturing and gas station properties. Asbestos and lead paint inspections were also completed.

DuBois & King recommended the completion of a Phase II ESA to investigate the potential of contamination from previous activities at the site or nearby properties, and a subsurface investigation of soil and groundwater quality in the area of the leach field was completed. The investigation results were provided in a rapid timeframe allowing the property transfer to move forward.





### Phase I Environmental Site Assessments, Madawaska Land Port of Entry, Madawaska, ME

D&K supervised the completion of seven separate Phase I ESAs on contiguous parcels for a proposed relocated Land Port of Entry from Canada. The Environmental Site Assessments supported the objectives of characterizing environmental conditions and assessing potential liabilities on land to be acquired for construction of the project. D&K performed the The Phase I ESAs in conformance with ASTM E 1527-13 Standard Practice for Environmental Site Assessments and included:

- Review of federal and state regulatory agency databases for the Site and selected radii around the site.
- Review of aerial photographs to obtain information on the land use and indicators of environmental conditions on the subject property and adjacent properties.
- Review of historic subsurface investigations, including soil and groundwater sampling results.
- Review of Sanborn Fire Insurance maps to obtain information on the historic land use of the subject property and adjacent properties.
- A review of U.S. Geological Survey topographic maps to obtain information relative to the physical setting and development history of the subject property and adjacent properties.
- Interviews of individuals, including local environmental incident response authorities, knowledgeable about the subject property and surrounding properties.
- Reconnaissance of the subject property and adjacent properties to be acquired as part of this project to obtain information regarding the presence of RECs in connection with the subject property.

The land acquisitions have been successfully completed and the project has moved into the design-build phase.











# CDBG Feasibility Study Windy Hill Cooperative Tilton, New Hampshire

DuBois & King provided services for a study of water/wastewater and electrical infrastructure for a manufactured housing cooperative. The cooperative includes 48 residences and operates two public water systems and 40 on-site septic systems; the deteriorating water systems were a focus of the study and include two separate distribution networks and groundwater sources. The study addressed existing conditions of the water/wastewater systems and the electrical systems as well as evaluation of roadways and drainage throughout the Park.







### Bunker Lane Condominium Association CDBG Feasibility Study Madbury, New Hampshire

DuBois & King provided services for a study of water/wastewater and electrical infrastructure for the Bunker Lane Condominium Association (BLCA). The BLCA was awarded a CDBG Feasibility Study Grant to complete the study. The BLCA is a resident-owned community in Madbury consisting of 51 homes on individual lots providing housing for low to moderate income households. The neighborhood was first developed in the 1970s, and the resident-owned condominium association was formed in 1995. The community has a shared on-site wastewater collection and disposal system that was installed in 2007. Drinking water is supplied by the City of Portsmouth through a 2" meter and redistributed throughout the community through a network of pipes owned and maintained by the BLCA. The BLCA also owns and maintains its own road network and associated drainage structures.

The purpose of this study was to complete an evaluation of the existing infrastructure in the community owned and operated by BLCA. The study focused on the existing water infrastructure and historical issues in maintaining adequate water pressure throughout the neighborhood. D&K's goal for the study was to document the existing pressures within the system and identify solutions to improve pressure for the residents.













### **NEPA Experience**

### **Environmental Impact Statements**

Bennington Bypass, VT (FHWA) Chittenden County Circumferential Highway, VT (FHWA) Bolton Interchange, VT (FHWA) Rouses Point Bridge, VTrans (FHWA)

### **Environmental Assessments**

Rangeley Municipal Airport, ME (FAA)
Newport Airport, VT (FAA)
Caledonia County State Airport, VT (FAA)
E. F. Knapp Airport, Berlin, VT (FAA)
Fair Haven Airport, VT (FAA)
Boire Field, Plymouth Airport Commission, MA (FAA)

Franklin County Airport, VT (FAA)
Six EAs, NH Fish & Game Department, Various Locations (F&W)

Craig Brook National Fish Hatchery, Orland, ME (F&W)

Vermont National Guard Training Facility, VT (DOD)

New Hampshire National Guard Training Facility, NH (DOD)

Montpelier District Energy Project, Montpelier, VT (DOE)

Wallkill River, Ulster County, NY (USACE)

Mad River Aquatic Restoration Project, VT (USACE)

Mill Brook Railroad Culvert, NJ (USACE)

Elizabeth River Park, NJ (USACE)

Crescent Connector, Essex Junction, VT (FHWA)

Re-evaluation, U.S. Route 7, Shelburne-South Burlington, VT (FHWA)

Exit 13 Urban Improvements, VTrans, VT (FHWA)

Connecticut River Bridge, Brattleboro, VT/Hinsdale, NH (FHWA)

Burlington Main Street, VT (FHWA)

Chittenden County Circumferential Highway/Reevaluation, VT (FHWA)

Rutland Multi-Modal Center, VT (FTA)

Union Station & Transportation Center, Brattleboro, VT (FTA)

Vermont Agriculture and Environmental Laboratory, VT (FEMA)

Wetland Reserve Program, US Route 2, Cabot, VT (NRCS)

Chandler Music Hall, Randolph, VT (HUD)











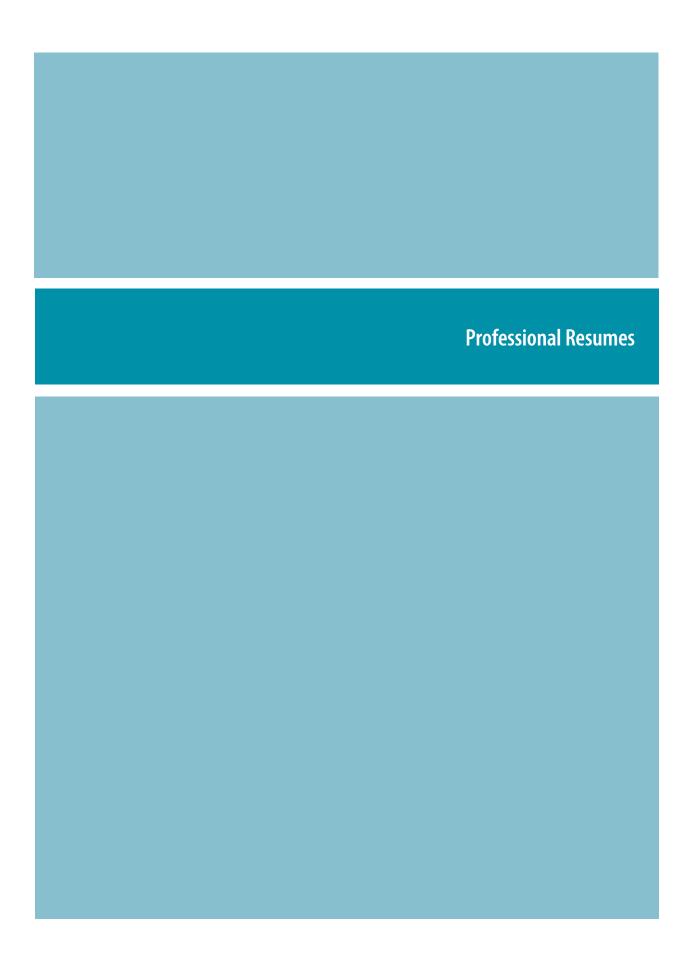


### **Categorical Exclusions**

CE/4f, Maidstone Bridge, VT CE Documentation, VTrans Enhancement Grants Jacksonville Bridge/Dam, Whitingham, VT Montpelier-Berlin Bike Path, VTrans, VT Barre Town Bike Path, VT Rail Crossing, New Haven, VTrans Rail Crossing, Pittsford, VTrans Chippenhook Bridge, Clarendon, VT Pumpkin Lane Bridge, Hardwick, VT Junction Road Bridge, Montpelier/Berlin, VT Cross-Railroad Street Sidewalks, Brighton, VT Route 14 Sidewalk, Williamstown, VT Maple and Union Street Sidewalk, Brandon, VT Warners Corner Sidewalk Project, Colchester, VT Exit 16 Sidewalks, Colchester, VT Sidewalk Improvements, Barre, VT Three Rivers Transportation Path, St. Johnsbury, VT Pedestrian Bridge & Multi-use Pathway, Hardwick, VT Thetford Hill Vlg. Trans. Enhancements, TRORPC, VT Borough Road Bridge Replacement, Hill & Bristol, NH Bingo Bridges, U.S. Forest Service, Rochester, VT New Ipswich Sidewalk, New Ipswich, NH Brooklyn Road Bridge over Otter Creek, Mt. Tabor, VT Route 15 Bridge, Hardwick, VT Hinesburg Bridge TH200111, VT Silver Street Bridge, Hinesburg, VT Blueberry Lake Dam, Warren VT St. Albans Park & Ride, VTrans Weathersfield Park & Ride, VTrans Derby Sidewalk, VT Northfield BRO 1446 (21), VT Highway Resurfacing Retainer Contract, VTrans

- STP 2721(1)S, U.S. Route 7, Burlington
- IM 089-1(1)S, I-89 SB, Hartford-Sharon
- IM 089-1(1)S, I-89, Sharon-Hartford
- STP 2209(1)S, VT 12, Worcester-Elmore
- STP 2722(1)S, Alt. U.S. 7, Burlington
- STP 2802(1)S, VT 113, Chelsea-Vershire
- STP 2613(1)S, VT 105, Troy-Newport
- STP 2617(1), VT 15, Winooski
- STP 2616 (1), VT 15, Colchester-Essex
- IM 089-3(64), I-89, Colchester-Georgia
- STP 2507, VT 100, Moretown-Duxbury-Moretown
- IM 091-2(76), I-91, Newbury-Barnet
- STP 2210, VT 14, Williamstown-Barre

Chimney Hill Road Culvert Replacement, Wilmington, VT Interstate 89 Exit 12 Improvements, Scoping Study, Williston, VT I-89, Exit 12 Improvements Final Design, Williston, VT



B.S. Environmental Engineering, Rensselaer Polytechnic Institute, 1992

M.S. Course, Advanced Hydrology, Kansas State University, 2001

M.S. Course, Physical and Chemical Hydrogeology, University of Massachusetts, Lowell, 1996

M.S. Courses, Wastewater Treatment and Engineering; Open Channel Hydraulics, University of New Haven, Connecticut, 1994-95

#### REGISTRATIONS

Environmental Engineer: NH 9709
Professional Engineer: VT 7350; NY 79818
Certified Vermont Class 2 Public Water System Operator
40-hour OSHA HAZWOPER Course
8-hour OSHA HAZWOPER Course
Firefighter I Certification

Mr. Ashley has 28 years of environmental and civil engineering experience. Director of the Public Works Division, Jon's experience includes planning, management, and design of water and sewer projects, hazardous waste and brownfield remediation, road and slope projects, stormwater collection and treatment, and site/civil development projects for municipal, state, local and private clients. Jon has supported environmental documentation and permitting for infrastructure and site projects and maintains strong working relationships with regulatory officials.

**Madawaska Land Port of Entry, Madawaska, ME.** Senior Environmental Engineer directed the development of Phase I ESA reports according to ASTM Standards for needed property acquisitions as part of an overall A/E team for a new \$35M Land Port of Entry (LPOE) facility.

**Phase I Environmental Assessment, Gaslight Village Cooperative, Tilton, NH.** QEP for completion of a Phase I ESA according to ASTM 1527–13 standards in support of an assessment of a water and waster water system serving a 29-unit manufactured housing park. This was a CDBG-funded project.

**Housing Vermont Redevelopment, Middlebury, VT.** Performed asbestos inspections and Phase I ESAs for several underutilized downtown residential housing units allowing the housing and lots to be upgraded and renovated. Developed asbestos abatement technical specifications and coordinated air sampling and visual clearance testing. Evaluated historical records and observations at the properties for recognized environmental conditions. Oversaw the removal of fuel oil-contaminated soil and investigated possible lead contamination in an underground firing range. Oversaw the removal of an out-of-service underground storage tank.

**18 Church Street, Battenkill Valley Health Center, Arlington, VT.** Completed Phase I ESA of a 0.48-acre parcel containing a building constructed in the 1800s that was renovated to include two commercial office spaces and two apartments. The prospective purchaser was considering purchasing the property and renovating the building for use as part of a medical practice and contracted D&K for a Phase I ESA to identify recognized environmental conditions (RECs). RECs included a heating oil tank and a metals treatment system connected to the on-site leachfield, as well as nearby manufacturing and gas station property uses. D&K recommended completing a Phase II ESA to investigate the RECs.

**Middlebury Town Offices, Middlebury, VT.** Performed a Phase I ESA according to ASTM 1527–13 on behalf of the prospective purchasers. Identified recognized environmental conditions that led to a Phase II ESA to investigate a former gas station, a former leaking UST, contaminated fill, and historic use of the on-site garage. Middlebury College has since demolished the structure and established an urban park.

**38 Pond Lane, Middlebury, VT.** Completed a Phase I Environmental Site Assessment (ESA)—according to ASTM Standards—for an 18.52-acre industrial property with perceived contamination from former clothing manufacturing activities and off-site sources. Services included assisting the prospective purchaser with enrollment into the state's BRELLA (Brownfields) program. Based on the site's history and setting, conducted preliminary screening followed by a Phase II ESA and vapor intrusion evaluation that identified the presence of volatile organic compounds at low concentrations. Soil gas samples were collected for a vapor intrusion evaluation, eight groundwater monitoring wells were installed in areas of concern, and soil samples were collected. A product inventory and MSDS review were used to develop a contaminants of concern profile for the QAPP. Based on favorable groundwater sampling results, the site qualified for a Certificate of Completion with no deed restrictions and is closed.

**Site Investigation and CAP, Montpelier-Berlin Bike Path, Montpelier, VT.** Senior Environmental Engineer for a Phase II ESA on a former automotive maintenance site bisected by two railroad rights of way. Soil sampling the area of a proposed bike path showed evidence of petroleum, polycyclic aromatic hydrocarbons, and low level VOC contamination from the former auto undercoating operations and historic property uses. Designed a capping system to prevent human exposure to contaminated soils on the site.



M.S., Hydrogeology, Clemson University, 1994 B.A., Geology, Environmental Studies, Alfred University, 1993

### REGISTRATIONS

Professional Geologist: NH 388; NY 1131
Professional Engineer: VT 8929; NY 101102
Certified Wastewater Site Technician Type B: VT 487
Class IV Public Water System Operator: VT 2644
Grade 2 Domestic Wastewater Operator: VT 1421
OSHA 40-Hour HAZWOPER Certificate
OSHA 8-Hour Supervisor Certificate
TSP-20-23000 NY, VT

Mr. Hoak has 27 years of experience in environmental engineering, site development, land use planning and hydrogeologic consulting. He has implemented environmental investigations and designed and operated groundwater and soil remediation systems. Andy has conducted water quality evaluations at landfills, performed remedial pilot tests, prepared Corrective Action Plans, supervised brownfield redevelopment projects, and operated groundwater and vapor recovery systems. He has extensive experience in the design and permitting of stormwater management controls. He has modeled sediment and nutrient loading to receiving streams and calculated resulting reductions due to engineering controls.

**9 Church Street, Battenkill Valley Health Center, Arlington, VT.** Provided technical review of a Phase I ESA at a 0.67-acre property containing a commercial building housing a medical clinic. Based on D&K's observations and the information reviewed, no additional environmental assessment work was recommended for the subject property.

**18 Church Street, Battenkill Valley Health Center, Arlington, VT.** Provided technical review of a Phase I ESA of a 0.48-acre parcel containing a building constructed in the 1800s that was renovated to include two commercial office spaces and two apartments. The prospective purchaser was considering purchasing the property and renovating the building for use as part of a medical practice and contracted D&K for a Phase I ESA to identify recognized environmental conditions (RECs). RECs included a heating oil tank and a metals treatment system connected to the on-site leachfield, as well as nearby manufacturing and gas station property uses. D&K recommended completing a Phase II ESA to investigate the RECs.

**Phase II ESA, Former Lakeside Garage/Fred's Plumbing and Heating, Morrisville, VT.** Project Manager for a Phase II Environmental Site Assessment that included the advancement of several soil borings and installation of groundwater monitoring wells. Completed water quality sampling and an evaluation of impacted sensitive receptors. During the redevelopment of the former garage, prepared a design for a sub-slab depressurization (SSD) system below the slab foundation at the new plumbing and heating facility.

**Phase I and Phase II ESA, Trade Road, Plattsburgh, NY.** Completed a Phase I and Phase II Environmental Site Assessment of a 3,000 square foot office building and light industrial manufacturing facility. During the completion of the Phase I several floor drains were identified in the structure which were investigated for connection to the municipal wastewater system or discharging to soil and groundwater. The Phase I also identified a 1,000 gallon waste oil above ground storage tank which was situated on a concrete pad near on the floor drains. Completed sampling of on-site soils and sludge contained with the floor drains and assisted the client with proper closure of all drains.

**Phase I ESA, Northway Apartments, Margaret Street, Plattsburgh, NY.** Completed a Phase I Environmental site assessment of a former 20 room motel located near the center of downtown Plattsburgh, NY. A historical file review indicated that the site had been developed since the early 1800s and included a variety of land uses. In addition to identifying several former petroleum aboveground and underground storage tanks, multiple hazardous waste sites were positioned adjacent to the property which made the identification of contaminant sources and responsible parties very challenging. In order to complete the real estate transaction which necessitated the Phase I ESA, thorough documentation of existing known contaminant plumes was completed.

**Phase I ESA and Wastewater Evaluation, Monty's Bay Marina, Chazy, NY.** Completed a Phase I Environmental Site Assessment and evaluation of existing on-site wastewater disposal systems for a potential real estate transaction Monty's Bay Marina. The investigation identified several deteriorated 55-gallon waste oil barrels which were located adjacent to floor drains in the marina maintenance garage. Complete a dye tracer test to determine the discharge point of the floor drains and collected confirmatory soil samples at the outlet to demonstrate that no discharge of hazardous materials had occurred. Also located existing on-site disposal systems and determined existing wastewater disposal capacity. Performed supplemental test pits to identify additional nearby sites that would be suitable for additional wastewater disposal.



Bachelor of Civil Engineering (BCE), Environmental Concentration, The Catholic University of America, 2004

### REGISTRATIONS

Professional Engineer: NH 13870

#### CERTIFICATIONS

NH Local Public Agency Certification Training - Federal Aid: 1518.

Mr. Sceggell has 16 years of experience working with municipal, nonprofit, and commercial clients on a diverse portfolio of design, construction management, and environmental planning projects. He has significant experience on civil/site and utility projects including drinking water, wastewater/sewer, and stormwater infrastructure. Nick has expertise with ArcGIS mapping software and GPS data collection; AutoCAD Civil3D to create alignments, profiles, vertical and horizontal curve design, and related site design techniques; WaterCAD to model water systems in order to evaluate capacity and development impacts; and HydroCAD for stormwater management calculations.

**Water/Wastewater System Improvements, Gaslight Village Cooperative, Tilton, NH.** Project Manager for an assessment of existing conditions and design of proposed improvements to an existing water and wastewater system serving a 29-unit manufactured housing park. This CDBG-funded project includes design of improvements for a 10-unit expansion to the park, which is currently served by on-site disposal systems and water supply by the Lochmere Village Water District. Responsibilities also included providing periodic construction observation.

**CDBG Feasibility Study, Bunker Lane Condo Association, Madbury, NH.** Project Manager for a feasibility study of water infrastructure for a manufactured housing condominium association. The association includes 51 residences and receives drinking water from the City of Portsmouth. Water is metered through a single master meter at the property line. All of the distribution lines within the neighborhood are owned and maintained by the Condo Association.

### Water/Wastewater System Improvements Feasibility Study, Windy Hill Cooperative, Tilton, NH.

Project Manager for an evaluation of a cooperative campus including 48 residences with operates two public water systems and 40 on-site septic systems; the deteriorating water systems were a focus of the study and include two separate distribution networks and groundwater sources. The study addressed existing conditions of the water/wastewater systems and the electrical systems as well as evaluation of roadways and drainage throughout the Park.

**Source Water Protection Plan and Water System Maintenance Program, Whip-O-Will Cooperative, Plymouth, NH.** Assisted the cooperative with the completion of their chemical monitoring waiver program application including inventories of potential contamination sources to the drinking water source within the wellhead protection area. Completed educational mailings to all property owners in the wellhead protection area and provided the system with wellhead maps. Worked with the cooperative's board of directors to locate and operate all of the water system valves and service line shut-offs. Created an inventory of the system components and condition of the shut-offs for future use in developing the water system's asset management plan.

**Merrymeeting River Manufactured Housing Park Water Design, Alton, NH.** Project Manager for water distribution system design and hydraulic modeling for approximately 2,000 feet of water lines for an existing manufactured housing park. Specific tasks included approximation of average and peak daily demands, and conceptual and final design of the water distribution system. The design documents were optimized for both looping of the water distribution system and for a phased approach to construction, depending upon system demands and available funding.

**Main Street Reconstruction, Claremont, NH.** Project Engineer for design of a full-depth utilities and roadway reconstruction project. The project supports a larger "Gateway to the City" project. Provided utility design and layout. Designed stormwater features and prepared construction drawings and specifications.

**WWTF Design, Glencliff Home Dementia Wing Addition, State of New Hampshire, Benton, NH.** Civil Engineer completing an assisting with the evaluation and design of an upgrade to an existing on-site wastewater treatment and disposal system to accommodate the design of a new building addition. The wing will house 15-20 single patient rooms with ensuite toilet rooms and associated support spaces to form a new dementia care unit. The proposed addition will increase the system loading by approximately 2,400-GPD. The wastewater from the facility is conveyed by a gravity sewer system to an on-site wastewater treatment and disposal system located behind the Maintenance Shop. Perforated pipe collects the filtered effluent below the sand beds and conveys the flow via gravity to the three subsurface disposal fields. Responsible for a study to review and design a new package facility.



B.S., Environmental Engineering, Clarkson University, 2016

### CERTIFICATIONS

NH Local Public Agency Certification Training - Federal Aid: 1877

Ms. Vasquez has experience with residential and commercial site design, including utility, grading and drainage, septic and subdivision design work as well as feasibility studies, cost estimating, preparation of specifications and construction inspection. Taylor is experienced in utilizing AutoCAD and ArcGIS, Autodesk Revit, Matlab, and LabView.

**Water/Wastewater System Improvements, Gaslight Village Cooperative, Tilton, NH.** Design Engineer for an assessment of existing conditions and design of proposed improvements to an existing water and wastewater system serving a 29-unit manufactured housing park. This CDBG-funded project included design of improvements for a 10-unit expansion to the park, which is currently served by on-site disposal systems and water supply by the Lochmere Village Water District. Provided drafting and design.

**Phase I ESA, Westview Meadows, Belmont, NH.** Civil Technician for completion of a Phase I ESA for critical improvements and upgrades of the community's water system that serves 24 homes and approximately 70 residents. Responsible for writing/developing the Phase I ESA report. The project was funded through a Community Development Block Grant.

**Orford Closed Landfill, Orford, NH.** Project Engineer for annual landfill monitoring and reporting at Orford NH Closed Landfill. Coordination with laboratory and field staff on annual sampling requirements. Evaluate ground and surface water quality data. Prepare annual Groundwater Management Permit Summary Report. Developed permit application for renewal of the facility's Groundwater Management Permit.

**Fay's Boatyard Stormwater Monitoring, Gilford, NH.** Civil Technician providing quarterly stormwater discharge monitoring. The monitoring is a voluntary practice that is being conducted for compliance with the site's Stormwater Pollution Prevention Plan (SWPPP).

**Bridge. No. 150/106 NH Route 113 over Bearcamp River, Tamworth, NH.** Permitting Specialist for a one-span, 131-ft replacement of a three-span bridge. Supported competition of a NHDES Standard Dredge and Fill Permit, NHDES Shoreland Permit by Notification, Categorical Exclusion, and Essential Fish Habitat Assessment.

**Bunker Hill Road Bridge, Tamworth, NH.** Permitting Specialist for an in-kind replacement of a municipally-owned single-lane bridge that carries Bunker Hill Road over Mill Brook. NHDES Standard Dredge and Fill Permit. Drafted wetland impacts plan based on wetland delineation and proposed site design. D&K is designing an in-kind replacement of a municipally-owned single-lane bridge that carries Bunker Hill Road over Mill Brook. The current bridge is on the NHDOT "Red List" due to several deficiencies. The replacement structure, with a clear span of 37'-0", will include a timber deck supported by steel stringers on cast-in-place concrete abutments. The firm's services include final design of the new structure and roadway approach work, topographic survey, hydraulic and hydrologic analysis, NHDES permitting assistance, and wetland delineation.

**Geotechnical Engineering, Swidler Boathouse, Wolfeboro, NH.** Design Engineer to observe borings for a residential geotechnical project. D&K is evaluating subsurface conditions of the property and will provide recommendation for remedial work associated with differential settlement of the boat house foundation located at 68 Sewall Road in Wolfeboro.

**Gold Street Utility Bridge, Laconia, NH.** Design Engineer supporting the evaluation and design of emergency repairs to the Gold Street Utility Bridge over the Lake Winnipesaukee Outlet in Laconia. The existing two span steel truss utility bridge, with a total span length of 140 feet, was constructed in the 1920s. The bridge carries a 12" diameter active sewer line as well as an abandoned (de-activated) 6" diameter water pipe and 8" gas pipe, suspended a mere 16" above Lake Winnipesaukee. In December 2015, City PWD observed a complete failure of the east span truss, with an immediate threat of the sewer line collapse and discharge of raw sewage into the Lake. D&K to provided immediate and fast-track engineering services emergency repair design.

